COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

This form is intended to be filled out electronically and then printed or emailed for submittal – emailed submittal is preferred. Please submit the completed MS4 Outfall Survey to the Water Quality Control Division by August 9, 2013. This survey is voluntary.

Please submit to Michelle DeLaria at michelle.delaria@state.co.us, or to:

Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name): Douglas County

Permit Certification No:
COR - 080003

Ouestions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc.)?

We have mapped our outfalls using GPS and built the applicable GIS database and maps.

Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for

How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part

- Douglas County has collected some outfall sizing data which was collected during the development of our MS4 outfall map required under the permit.
- Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)
 - Douglas County has not conducted dry weather screening. Gathering data without a clear goal is not appropriate nor a good use of resources; rather, dry weather flows from any outfall should first and foremost be an IDDE incident to be investigated using protocols in MCM 3, IDDE program.
- 4 If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc.?

N/A

most outfalls, etc.)

- Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.
 - No, we do not have data on exact outfall pipe sizes or flows.
- Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

Douglas County has not researched or estimated the number of our MS4 outfalls that may have a dry weather flow, rather Douglas County has directed its resources towards program elements, such as the IDDE program, that are more cost effective methods of achieving these goals.

Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.

Douglas County has not conducted any dry weather monitoring for either selenium or E coli. (see comments below).

- Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
 - To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
 - To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

No. Douglas County does not feel it is appropriate or reasonable to require monitoring for TMDL-related pollutants through the Phase II MS4 Stormwater General Permit, particularly if the pollutants are not associated with stormwater runoff and it is unlikely that they can be controlled by the use of stormwater BMPs.

- What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

The primary reason no or limited dry weather screening was conducted, in addition to the high cost of the screening, is due to the ineffectiveness in identifying illicit discharges. There have been and continue to be other more cost effective methods of achieving these goals.

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Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency	name):
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City of Greenwood Village

Permit Certification No:

COR - 080004

Questions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

- How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc.)?
 - The MS4 outfalls were mapped as required in the 2003-2008 permit term. The permit requirement was to develop and maintain a current storm sewer system map. Previously, the Village had the MS4 system (including outfalls) mapped on paper and they were then documented on a GIS database.
- Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)
 - Most but not all outfalls have been documented by size and type/condition for the purpose of general public works and drainage system maintenance and not utilized as part of outfall screening for illicit discharges. The mapping also includes the MS4 with pipes, inlets and manholes. The system is updated for new construction, site reconnaissance and video inspections. When new systems are constructed or improvements are made to existing systems, the map is updated.
- Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)

Due to the amount of outfalls in the permit coverage area, screening cannot be completed as a one-time effort. Rather, dry weather screening is completed on an annual basis at the rate of 60 outfalls per annum as outlined in the Dry Weather Screening Procedure that was updated as part of the Division's Audit of the Village's MS4 permit. It is difficult to provide an exact number of outfalls that have been screened other than estimating that about 90+% have been screened (60 outfalls/annum-from implementation during the first permit cycle to present day - would include all outfalls that could be identified/located. It is not accurate to state 100% have been screened as some can be

obstructed by vegetation, outfalls can be submersed, etc.).

4 If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc.?

Dry Weather screening includes:

Documentation if there is evidence of an illicit discharge (materials associated with an illegal connection such as toilet paper or restaurant grease; dead/dying vegetation or wildlife; discolored vegetation or discolored outfall structure);

Is there an odor; Is water flowing; color/clarity of water; visible particles in the water; Is the source of water apparent? (This is a YES/NO response).

Monitoring is not completed as the majority of any flowing water is due to irrigation, high groundwater and or sump pump connections to the MS4.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

The following estimate is as follows for the MS4 outfalls in the permit coverage area that discharge(s) to segments on the 303(d) list for Selenium: Big Dry Creek 3, Little Dry Creek 5, Greenwood Gulch 25, Goldsmith Gulch 11, and Cottonwood Creek 3. Although there is an estimate of 47 outfalls that discharge to a segment that is listed on the 303(d) list for Selenium, we do not know how many have dry weather flow.

The estimate was based on identifying outfalls on the GIS Map that discharge to these segments. Although this estimate considers <u>all</u> outfalls, perhaps outfalls located in recent developments are exempt from sampling as utilities and infrastructure are inspected at the time of construction therefore, a cross connection would not be possible.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have **dry weather flows that occur in excess of 5 gallons per minute?** If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

The Village has not and does not track the flow rate of dry weather flows as part of the dry weather screening and has no idea how many of the estimated outfalls in Question 5 have a flow in excess of 5 gallons/minute. We have assumed that if it is irrigation return flow, high groundwater or sump pump flow, there has been no basis for measurement and not a valuable use of resources. Measuring dry weather flows would not provide information that would be of beneficial use for water quality purposes. We would recommend that dry weather screening occur during the non-irrigation season.

Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.

No. The Village has not determined a benefit to proactively monitor or sample dry weather outfall discharges.

- B Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
 - To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
 - To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

No. If the general premise is to utilize dry weather sampling to identify cross connections, an item to suggest is that

outfalls that were installed as part of a recent development are exempt from monitoring as municipalities, sanitation districts, etc. inspect infrastructure construction which results in prevention of sanitary cross connections.

- 9 What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

The primary reason for mapping the MS4 with outfall details was for the purpose of general public works and drainage system maintenance and not utilized as part of outfall screening for illicit discharges. The mapping also includes details of the MS4 pipes, inlets and manholes. The maps are updated for new construction, site reconnaissance and video inspections. When new systems are constructed or improvements are made to existing systems, the map is updated. Additionally, videoing the line assists staff in determining if the infrastructure is in need of maintenance, repair or replacement.

We come to find that the MS4 mapping is beneficial for responding to an illicit discharge to assist in tracking the location of a spill, if a waterway and/or which specific waterway will potentially be affected and/or if there are opportunities to capture the illicit discharge <u>before</u> it enters water ways. Dry weather screening from the first permit cycle to present day has not resulted in finding illicit discharges or illegal/cross connections, rather we come to find illicit discharges from the other two parts of the three prong approach:

First prong: Greenwood Village employee recognizing and reporting suspicious problems in conjunction with staff training. This has been the case with both public works employees and police department. They are aware if they see something out of the ordinary and/or report spills, motor vehicle accidents, sanitary sewer overflows or grease trap maintenance issues.

Second prong public contact line-this has resulted in the public reporting spills, sanitary sewer overflows and/or illegal dumping.

Third prong is dry weather screenings. Dry weather screenings have only resulted in assisting with maintenance/repair of infrastructure, outfalls and waterways. We have come to determine that illegal connections and or illicit discharges have not been identified with dry weather screenings.

NOTE:

General Survey Comment:

Monitoring is not a good use of resources as we have determined that outfall screening is just one part of the three prong approach that has not resulted in detection of illicit discharges. That is not to say that outfall screening is not a beneficial part of the three prong approach and we continue to support outfall screening (because it assists in determining if outfalls and/or waterways are in need of maintenance). However as we have found that our discharges are from sump pumps, high groundwater and or irrigation, we would be wasting resources for sampling.

Monitoring is a small part of the TMDL determination, and we ask the Division to consider the big picture of TMDL (e. coli, not only from stormwater but also from agriculture, wildlife, pets, and naturally occurring selenium). If MS4s were required to monitor and find that results for selenium and e. coli exceed standards, then what would the Division and MS4s have to potentially do to address and resolve these high results? As selenium is naturally occurring in the State of Colorado and widespread in our soils, streams listed for selenium impairment has been given a low priority rating by the Division. Monitoring does not provide useful information to the permittees for controlling selenium and we are unclear what the Division's strategy for controlling selenium is and what, if any, connection that selenium has to stormwater runoff as opposed to groundwater seepage into stormwater conveyance systems. The Village is committed to promoting water quality as part of Quality of Life for its residents and takes pride in being a good steward of the environment, however the emphasis on promoting sampling of impairments that can be attributed to natural (non-human) sources is concerning. Thank you for the opportunity to provide feedback on outfall screening and potential monitoring.

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Attn: Michelle DeLaria
Colorado Department of Public Health and Environment
WQCD-P-B2
4300 Cherry Creek Drive South
Denver, CO 80246-1530

Permittee (Agency name): Arapahoe County

Permit Certification No: COR-080010

COR -

Ouestions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?

Outfalls are identified and tracked in a GIS database. After new outfalls are constructed and receive final acceptance through the Public Improvement Permit process, GIS outfall points are updated via digital as-built drawings and/or GPS field verification. Through a MOU and SOPs between Arapahoe County and SEMSWA, the County's system components are integrated into SEMSWA's Asset Management program.

The initial GIS database was developed using GPS points collected during a field inventory of all stormwater outfalls with the permit area.

Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)

Yes, the sizes of all outfalls that have been identified in the County's permit area are documented. Outfall size was initially recorded during the field inventory. The diameter of new outfalls is converted from digital as-builts into the GIS database.

Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)

Yes. Screening has been conducted as part of the first permit term field inventory of all outfalls within the County

	permit area. Additionally, the various SEMSWA Asset Management program efforts, including pipe video and system inventory, provide information that is linked to the appropriate County program area, including the IDDE program if flow is observed.
4	If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?
	The presence or absence of flow.
5	Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.
	Yes, there are 39 mapped system outfalls that have been identified as discharging to the stream segments listed as impaired for Se and E. coli per Regulation 93 listing.
6	Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.
	No.
7	Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.
	No.
8	Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
	• To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
	• To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)
	(Refer to the March 18, 2013 meeting notes for more information.)
	No, because it is not a priority for Arapahoe County. Selenium is naturally occurring in Colorado and widespread in our soils; therefore, streams listed for selenium have been given a low priority rating by the Division. Monitoring does not provide useful information to the County for controlling selenium, and we are unclear what, if any, connection selenium has to stormwater runoff (as opposed to groundwater seepage into stormwater conveyance systems). E. coli is also extremely widespread. E. coli can have a number of sources, such as human and pet waste, wildlife and re-growth.
9	What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;

- ease of implementation of the IDDE requirements of the permit
- proactively identify pollutant loading from the MS4
- targeted understanding of pollutant loading for impairment parameters to impaired segments

The presence of absence of flow is recorded during SEMSWA's field inventory for outfalls within the County permit area. Any flow observations will be recorded in an effort to identify the sources of non-storm flows that will be investigated and resolved under the IDDE Program. The Division's concept approach to requiring a monitoring program may result in a permitted entity's limited resources being redirected from the IDDE program which has a documented greater impact on improving stormwater quality.

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Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name):

City of Lone Tree

Permit Certification No:

COR - 080016

Ouestions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?

All of the known existing outfall locations within the City are maintained in a GIS database. The City was in the process of developing this database around the same time that the Outfall mapping requirements were instituted by the first permit. The City also utilizes several spreadsheet databases to track various requirements of the permit.

Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)

The sizes of the existing outfalls and most of the associated storm sewer systems are included in the database. This information is used for many applications including asset management, illicit discharge mapping, and construction and permanent BMP management. The database is updated periodically to include new development/construction/maintenance and to fill in gaps in the existing information.

Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)

No. At no point within the development and maintenance of the database has a documented dry weather screening been conducted and our current inspection checklist does not include the presence of flow.

4 If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?

n/a

Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

The City is in the process of adding drainage basin delineation to the database that would make it easier to quantify the outfalls based on those basins and none of the 287 identified outfalls within our permit area discharge directly into a 303(d) impaired waterway. The City is at the top of several drainage basins that flow through the metropolitan area (and other permit areas) and winds up in the South Platte, which is identified in multiple segments on the State's 303(d) list. It does appear that, based on the July 22 e-mail from Nathan Moore, the City may be subject to additional requirements due to the ultimate downstream discharge to Segment COSPUS16c. This would suggest that the issue of impairment would be better approached on a regional basin basis rather than using jurisdiction boundaries.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

As described in answer No. 3, flowrate has not been part of the observation/inspection checklist. It would also be difficult to approximate this flowrate for several reasons. Our development codes require a minimum diameter of 18 inches for storm sewer. Using a manning "n" calculation, the flow of 0.011 cfs would 3/8" deep in a pipe that has a slope of 2%. This minimal depth would be difficult to measure in-pipe. Another method to measure the flowrate would be to use a time/volume approach. Most of the outfalls have a flared end section that discharge into a riprap energy dissipation pad, which does not offer a location for the flow to "pour" into a collection volume.

Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.

No.

- Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
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 - To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

Since an overwhelming majority of the outfalls within the City do not exhibit dry weather flow, we feel that monitoring flows for impairment is not an appropriate use of the limited funds and personnel available for our program. Our experience with illicit discharge detection is that the most effective location to identify and correct the problem occurs at the source. The few incidents that we have experienced either did do not reach the storm sewer system, or for those that did,

were traced to a point within the pipe where the flow had been absorbed by the pipe walls prior to reaching an outfall. In one case of suspected cross connection, there were complaints of odor in detention pond with a permanent water surface without an indication of flow. Dry weather monitoring would not have been an effective tool, as the odor was due to a seasonal pond overturn. The success of our IDDE program can be attributed to the expanded education to emergency personnel, maintenance contractors, and the community at large.

The City is committed to promoting water quality but troubled by the emphasis on reducing selenium and E Coli when both of these "impairments" can be attributed to natural (non-human related) sources.

- What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

The City does not have this information but is curious about the examples cited.

- How would monitoring "ease" the implementation of the IDDE program? Perhaps singular testing of suspected locations may help in the identifying cross connections, but constant monitoring?
- In this arid climate, it is difficult to identify baselines or even trends for pollutant loading.

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Permittee (Agency name): Southeast Metro Stormwater Authority (SEMSWA)

Permit Certification No:

COR -080021

Ouestions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

- How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?
 - Outfalls are identified and tracked in a GIS database. After new outfalls are constructed and receive final acceptance through the Public Improvement Permit process, GIS outfall points are updated via digital as-builts and/or GPS field verification. SEMSWA's Asset Management program integrates system components with all SEMSWA program areas. The initial GIS database was developed using GPS points collected during a field inventory of stormwater outfalls within the permit area.
- Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)
 - Yes. Outfall size was initially recorded during the field inventory, and is verified during subsequent field efforts. The diameter of new outfalls is converted from digital As-builts into our GIS database.
- Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)
 - Yes. Screening has been conducted as part of the field inventory of outfalls within the SEMSWA permit area. Additionally, the various Asset Management program efforts, including pipe video and system field inventory, provide information that is linked to the appropriate SEMSWA program area, including the IDDE program, if flow is observed. Identified outfalls in the SEMSWA Service area have been inventoried for attributes, including the presence of observed flow.

4 If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?

The presence of observed flow.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

Yes. SEMSWA has identified 170 system outfalls that discharge to the stream segments listed as impaired for Selenium per the CDPHE mapping, the Division's email notification, and Regulation 93 table. The source of information is SEMSWA's Asset Management GIS database.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have **dry weather flows that occur in excess of 5 gallons per minute?** If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

No.

Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.

No.

- 8 Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
 - To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
 - To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

No, we do not have any additional information to provide because selenium is naturally occurring in Colorado and widespread in soil. We do not believe that monitoring as proposed by the Division provides useful information to control selenium, as stormwater is not a major contributor of selenium to State Waters. Nor do we feel it appropriate to require MS4 Permittees to collect the initial data to define sources, independent and outside of the more applicable TMDL process. Limited resources should not be diverted to monitoring from effective IDDE efforts.

- 9 What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

The presence of flow is recorded during field inventory efforts. Flow observation is recorded to identify any source of non-storm flows that need to be investigated and resolved under the IDDE Program.

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Please submit to Michelle DeLaria at michelle.delaria@state.co.us, or to:

Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name):

City of Glendale

Permit Certification No:

COR - 090003

Questions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?

In a GIS database.

Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)

Yes, we have the data on a spreadsheet, but it is not entered into our GIS database.

- Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)
 - Screenings are done throughout the year as part of the illicit discharge detection and elimination program. All outfalls are screened to identify possible illicit discharges. Samples are not taken unless a visual inspection of the outfall warrants it (evidence of polluted flows- discoloration, smell, etc).
- 4 If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?

Presence of flow is documented along with a source if the source is known (groundwater from pump, irrigation, etc). Flow rates are not documented.

- Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.
 - All 22 outfalls in Glendale discharge to a segment of Cherry Creek that appears to be impaired for E coli and Selenium based on the 303d list.
- Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have **dry weather flows that occur in excess of 5 gallons per minute?** If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

It varies from day to day how many outfalls may have a discharge in excess of 5 gallons per minute. On day 1, Outfall 2 may be flowing, on day 2, Outfall 2 may not be flowing, but Outfall 3, 6, and 8 will be. Method of approximation is based on outfall screenings conducted throughout the year by Glendale staff.

Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.

No.

- Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
 - To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
 - To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

No, as mentioned above, dry weather flows are unpredictable and inconsistent.

- 9 What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

Glendale is a small community with easy access to outfalls (all Glendale outfalls reside within 0.5 miles of each other with a trail system running along both sides of the creek). Visual screening outfalls by staff to identify potential illicit discharges and pollutants fit into the program since it was inexpensive and required very little technical knowledge.

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name): City of Fountain

Permit Certification No: COR0900008

COR -

Ouestions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?

City of Fountain MS4 outfalls are included in a City GIS database developed in 2009 by AMEC. Some updates/edits are still required for the database due to routine follow-up field verifications and the completion of new improvement projects.

Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)

City of Fountain MS4 GIS database property tables generally include outfall pipe sizes and photographs.

Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)

The City has not conducted any recent specific "dry weather" screenings of its MS4 outfalls to complete this survey. However, due to extended drought conditions in the region the City of Fountain MS4 outfalls have generally been observed to be totally dry with no flow except during and shortly after major summer thunderstorm events. Most of the older Fountain MS4 detention ponds have 40-hour detention design times. Since 2008 a few 72-hour full-

spectrum detention ponds have been added to our MS4 system. Most detention ponds within the City of Fountain are located within the Jimmy Camp Creek Drainage Basin. To date the City stormwater facility inspectors have not attempted to measure flow rates or document weather conditions prior and at time of inspections to verify "dry weather" criteria. If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., 4 the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc? The City of Fountain MS4 permit inspections of outfalls have typically been limited to observations of structural integrity, debris, erosion, major sediment and unusual/excessive sheen/color/odor/ of potential effluent. However, as noted in Question 3 City of Fountain MS4 outfalls have typically been dry during such prior inspections. Some wet weather inspections have been conducted/utilized to track down construction site BMP problem areas and failures. Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation. No. This has not been part of our MS4 permit. Due to limited staffing resources no evaluation has been completed. Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have 6 dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation. No, as noted for Question 5. However, as noted in question 3 & 4 City of Fountain MS4 outfalls are typically dry during "dry weather." Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium. No, as noted for Question 5. Does the Permittee have any other information that could assist the Division in better understanding the number of 8 outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically: To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.) (Refer to the March 18, 2013 meeting notes for more information.)

No, as noted for Question 5.

- What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

Not applicable. However, dry weather screenings will generally be ineffective in identifying illicit discharges and will be costly to MS4 permit holders. The City of Fountain has limited resources and is not supportive of such endeavors. There are more practical and cost effective methods of achieving pollutant loading reduction goals than placing such ineffective and costly mandates on MS4 permits.

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Please submit to Michelle DeLaria at michelle.delaria@state.co.us, or to:

Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name): City of Loveland

Permit Certification No: COR – 090009

Ple	estions as a provide any additional narrative information that you believe may be helpful as the Division evaluates ential permit conditions.
1	How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?
	"The location of the City's MS4 outfalls is located in the City's GIS database which is updated regularly."
2	Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)
	"Yes, for most of our 361 MS4 outfalls."
3	Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)
	"Yes. Each year stormwater engineering staff performs dry weather inspections for the 48 outfalls that are ≥ 36" in dia., which accounts for approx. 13 % of the City's MS4 outfalls."
4	If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?
	"The dry weather inspections are performed in accordance with the inspection guidelines listed in the City's IDDE Plan."
5	Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge

to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide

number (or approximation) and briefly discuss the source of this information or method of approximation.

"We are not sure that the number we arrived at for this survey is 100% accurate because the accuracy of the 303(d) list maps is suspect. For this survey we estimated 6 outfalls. This number was obtained by running a spatial query upon overlaying our municipal boundary data and outfall data files over the shape file containing the impairment information we were given by CDPHE."

Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have **dry weather flows that occur in excess of 5 gallons per minute?** If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

"No. We have never measured the flow rates because it is not a requirement of our MS4 permit and the City's Stormwater Division has determined it is not an efficient or wise use of our limited resources and the funds we collect from our citizens."

Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.

"No. We have not collected any monitoring data because it is not a requirement of our MS4 permit and the City's Stormwater Division has determined it is not an efficient or wise use of our limited resources and the funds we collect from our citizens."

- Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
 - To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
 - To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

"No."

- What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
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"Not applicable."

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

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Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name): City of Northglenn

Permit Certification No:

COR - **090010**

Ouestions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?

Outfall location information is included in our GIS database.

Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)

Although not required by our Permit, our information includes size and material type for all known outfalls.

Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)

Although not required by our Permit, field observations of all outfalls are conducted at least once per year.

4 If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?

Although not required by our Permit, field observations include presence/absence of flow, presence/absence of sediment, presence/absence of debris and obvious indications of an illicit discharge (i.e. toilet paper, foam, oil/petroleum)

Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

No. This is not possible since the 303(d) list maps (shapefiles provided by the Division) are inaccurate and do not include identification of all tributaries.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have **dry weather flows that occur in excess of 5 gallons per minute?** If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

No, this information is not required by our Permit.

Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.

No, this information is not required by our Permit.

- 8 Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
 - To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
 - To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

No, we do not have additional information.

- 9 What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

The primary reason limited field observations were conducted is to identify obvious illicit discharges. None have been identified to this point. We also use this visual observation of streams to identify maintenance needs for our partnership with Urban Drainage and Flood Control District. Random sampling of streams and dry weather screenings is primarily ineffective in identifying illicit discharges and has a high cost. There have been and continue to be other more cost effective methods of achieving these goals.

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Permittee (Agency name): El Paso County	
Permit Certification No: COR – 090011	

1	How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?
	GIS Database
2	Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36"). Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)
	Yes, the GIS database contains information on discharge location, pipe size, material and condition.
3	Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)
	None conducted
4	If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?

Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

Yes, our GIS database contains 12 storm sewer outfalls that discharge directly into Fountain Creek from the confluence with Monument Creek south to the county line. These twelve locations were field verified.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have **dry weather flows that occur in excess of 5 gallons per minute?** If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

Yes, there is one (1) outfall that has flow during dry weather.

Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.

No dry weather outfall monitoring conducted.

- Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
 - To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
 - To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

The one (1) outfall known to have dry weather flow was field verified on 7/23/13. The source of water is an upstream pond which appears to be fed from groundwater. No storm sewer contribution to this flow was observed.

- 9 What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

The GIS database for storm sewer infrastructure is maintained for MS4 permit compliance and general maintenance (asset management) purposes.

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

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Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name):	
City of Louisville	
Permit Certification No:	
COR - 090017	

Plea	nestions ease provide any additional narrative information that you believe may be helpful as the Division evaluates tential permit conditions.	
1	How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?	
	We have a utility atlas that shows the locations of the MS4 outfalls in AutoCAD.	
2	Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)	
	We have the sizes of most outfalls.	
3	Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)	
	No	
4	If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?	
	N/A	

5	Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.
	No
6	Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.
	No
7	Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.
	No
8	Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically: • To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
	• To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)
	(Refer to the March 18, 2013 meeting notes for more information.)
	No
9	What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
	ease of implementation of the IDDE requirements of the permit
	proactively identify pollutant loading from the MS4
	targeted understanding of pollutant loading for impairment parameters to impaired segments
	We did not collect information beyond what was required.

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name):	
City of Boulder	
Permit Certification No:	
COR - 090019	

Questions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

- How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?
 - Yes. The City of Boulder (city) maintains a GIS database of all the MS4 outfall locations within Boulder. Data is stored on a shared server and updated by authorized city utility locator staff.
- Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)
 - Yes. The size and dimensions for each individual MS4 outfall are recorded in a GIS layer file referenced in response to Question 1.
- Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)
 - Yes. In 2009 the city conducted a one-time, comprehensive assessment of most all accessible outfalls and, where possible, documented whether the outfalls had dry weather flow and, when possible, the flow rate. On a more focused level the city conducts weekly monitoring of significant contributing dry weather flow outfalls to Boulder Creek through the urbanized area of Boulder.
- 4 If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?

Weekly monitoring of significant dry weather flows from MS4 outfalls to Boulder Creek consists of analyzing the following parameters: pH, dissolved oxygen; conductivity; water temperature; total organic carbon; total coliform and E. coli.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

There are approximately 94 stormwater outfalls located along the reach of Boulder Creek listed on the 303 (d) list as impaired for E. coli. Only a portion of Boulder Creek Segment 2b is listed as impaired, from 13th Street in Boulder to the confluence with South Boulder Creek.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

Approximately 9 dry weather outfalls along Boulder Creek experience a 5gpm or greater continuous discharge and have been studied weekly for more than five years. Flow rates were estimated by capturing the flow in a container of a know volume and then the time to fill the container was recorded.

Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.

The city monitors E.coli at 6 of the 5gpm or greater flow outfalls along Boulder Creek on a weekly basis. Selenium is not analyzed, but selenium data are available for samples collected instream in Boulder Creek.

- B Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
 - To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
 - To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

No additional information is available beyond what is listed in questions 1 through 8.

- 9 What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

The city is being proactive by evaluating E. coli on a weekly basis to better characterize E. coli loading from the MS4 to the impaired segment of Boulder Creek. An E. coli TMDL and Implementation Plan were developed to address the impaired segment of Boulder Creek and the TMDL was approved by the Division and the EPA in 2011.

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Please submit to Michelle DeLaria at michelle.delaria@state.co.us, or to:

Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name):	
BOULDER COUNTY	
Permit Certification No:	
COR - 090020	

Ouestions Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions. How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)? GIS database and maps Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.) Yes, for all outfalls 3 Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.) No. 4 If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc? N/A

5	Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation. No.
6	Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation. No.
7	Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.
	No.
8	Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
	• To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
	• To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)
	(Refer to the March 18, 2013 meeting notes for more information.)
	No.
9	What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
	ease of implementation of the IDDE requirements of the permit
	 proactively identify pollutant loading from the MS4
	 targeted understanding of pollutant loading for impairment parameters to impaired segments
	Not currently a program goal, priority or requirement. Also, this activity is not considered cost-effective.

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Please submit to Michelle DeLaria at michelle.delaria@state.co.us, or to:

Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name):	
Town of Erie	
Permit Certification No:	
COR - 090021	

1	How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?
	Yes
2	Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)
	Yes
3	Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)
	No
4	If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g.,

5	Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.
	Yes 20+/-
6	Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.
	No
7	Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.
	No
8	Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
	 To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
	• To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)
	(Refer to the March 18, 2013 meeting notes for more information.)
	No
9	What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
	• ease of implementation of the IDDE requirements of the permit
	 proactively identify pollutant loading from the MS4
	targeted understanding of pollutant loading for impairment parameters to impaired segments
	NA

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name): Town of Superior

Permit Certification No:

COR - 090022

Questions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?

We have an outfall systems map (paper copies and AutoCAD file) that was generated by our civil design consultant. We are currently working on an update to the map and hope to have it put into GIS within 6-12 months.

Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)

We have information on outfall sizes for approximately 75% of the storm sewer outfalls within our MS4 limits.

Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)

No dry weather screening of MS4 outfalls has been conducted as it is not required by our current permit.

4 If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?

N/A Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation. No. Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation. No. Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium. No. 8 Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically: To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.) (Refer to the March 18, 2013 meeting notes for more information.) No. What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.; ease of implementation of the IDDE requirements of the permit proactively identify pollutant loading from the MS4 targeted understanding of pollutant loading for impairment parameters to impaired segments

N/A

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name):
City of Lafayette
Permit Certification No:
COR - 090030

Questions Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.		
1	How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?	
	GIS database and maps.	
2	Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)	
	Yes, the information is on hand written worksheets. For some outfalls, it can be found in our asset management software. We have this information for most outfalls.	
3	Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)	
	Yes. Outfalls to State Waters are screened approximately every 3 years. Other discharge points may be inspected as part of other Public Works asset management programs.	
4	If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?	
	Location and a visual determination of evidence of illicit discharges has been recorded for implementation of the City's Illicit Discharge Detection and Elimination Program.	
5	Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide	

number (or approximation) and briefly discuss the source of this information or method of approximation.

No, the City has not yet compared the current outfall map with the State's list of impaired waters for E coli and Selenium.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have **dry weather flows that occur in excess of 5 gallons per minute?** If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

No. If the City has dry weather flows, they are most likely from irrigation or groundwater and are not continuous. Because the flows would not be continuous, it would difficult to determine the number of outfalls that could potentially meet this criterion. An outfall may flow for 2 weeks in May, and be dry the other 50 weeks of the year.

Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.

No.

- Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
 - To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
 - To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

The Division permits subterranean dewatering and requires monitoring of the discharges. The DMRs submitted by those permittees may give the Division some idea of flow rates, e coli and selenium data, and number of discharges that exceed water quality standards.

- 9 What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

Additional information has not been collected.

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name): CITY OF GREELEY

Permit Certification No:

COR - 090033

Ouestions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

- How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?
 - In 2000, the City of Greeley started collecting and/or converting infrastructure information into GIS asset management system; so all MS4 outfall locations are documented in the GIS database and GIS maps and spreadsheet.
- Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)

The City of Greeley's MS4 outfalls discharge to the following state waters: Cache la Poudre River; South Platte and the #3 Irrigation Supply Ditch. The City of Greeley has identified 31 outfalls that discharge directly to either the Cache la Poudre or South Platte rivers. These outfalls have been identified as either closed pipe or open drainage channels. All outfalls have also been identified by size and type of construction within the GIS asset management system.

There are also approximately 85 locations, where surface flow, mainly street flow is discharged into the #3 irrigation supply ditch. Pipe size information from these catch basins is approximate.

Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)

Yes, while the permit does not require dry weather screening, the City of Greeley has conducted dry weather screenings, focused on downtown drainage area as described in city's IDDE plan based on desktop assessment of illicit discharge potential, looking for indications of sanitary sewer cross connections and illegal dumping activities.

The 31 main outfalls to both rivers have been screened for presence of dry weather flow at least 3 times since 2003.

4 If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?

While this is not a permit requirement, the city's IDDE plan does include dry weather screening. Screening information collected: presence or absence of flow; visual observations of the surrounding area; in the downtown priority area some pollutant monitoring does occur like E coli monitoring in addition to ammonia and/or conductivity for presence or evidence of sanitary sewer cross connections and/or illegal dumping to those outfalls which had a flow. The E coli screening was added to the IDDE plan due to the TMDL river work that was being done by the Wastewater Treatment plant back in 2003. See question 8 more detail on the TMDL study.

All of this screening is being done for MCM #3.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

The city knows about the impairment for e coli on section 12 of the Cache La Poudre River which runs from Box Elder Creek to the Confluence with the South Platte. The city (Waste Water Treatment Plant) was predominately involved in a TMDL monitoring plan, which also served as the Problem Identification & Source Assessment portion of TMDL development process, with the Water Quality Control Division from 2002 thru 2004. See question 8 for more detail on this study.

The city (stormwater) has identified 28 outfalls that discharge into section 12 of the Cache la Poudre River and another 3 outfalls that discharge in the South Platte, not sure if this section of the South Platte is on the 303 D list.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

Again from the city's IDDE plan and dry weather screening in that plan there are probably two outfalls that would meet the flow criteria listed above. The one closed pipe outfall flow was actually measured for depth of flow in the pipe and the SW engineer calculated the flow based on type of pipe, pipe size and slope. The second one is an open channel that would need confirmation on flow rate but the city would guess that it could be above the 5 gallons per minute. These flows are mainly due to sump pumps, foundation drains, lawn watering and air conditioning condensation

Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.

Selenium – No, the city has not determined that this parameter would be attributed to an illicit discharge.

E coli – **yes** – as stated in the city's IDDE plan for the downtown drainage basin which was identified as a priority area screening for sanitary sewer cross connections and illegal dumping as it relates to MCM #3. The city uses E coli has an indicator of sanitary cross connections but more extensive evaluation is required to confirm or deny the connection. In our experience with the sanitary sewer cross connections, the E coli levels were exceptional high. For lower levels in the 2-3,000 range and below, E coli is not always indicative of sanitary and need to further investigate using other parameters besides just E coli, like ammonia and conductivity which also are indicators of sanitary. Once E coli presence is indicated, the city conducts other investigations like smoke testing of the sanitary sewer system and/or video inspections of storm sewers to locate possible source. See question 8 for more detail.

Section 12 of the Poudre River is on the 303 D list for e coli impairment. See question 8.

Not sure if the section of the South Platte that three (3) outfalls flow are on the 303 d list.

- Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
 - To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
 - To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

E coli can have a number of sources, such as human and pet waste, wildlife and re-growth.

Monitoring MS4 outfalls for E coli alone is not useful in determining the source of the E coli and if it is a stormwater issue or not. This is one of the many concerns provided in the written responses to the Division on monitoring following the Pre-Public Notice meeting; concerns were raised about gathering TMDL related data from only one of many potential sources.

The City of Greeley (Stormwater) has found that looking at just E coli levels above the stream standard alone do not correlate to source being from sanitary sewer cross connection or illicit taps. The city has conducted 70 dry weather screenings on its stormwater outfalls. While there were 44 events where E coli levels were above the stream standard, only 4 were found to be related to sanitary sewer cross connections or illicit taps. These four incidents had very high levels of E coli and there was no doubt about sanitary cross connections. The other 40 events ranged in values from 130 CFU/100 ml to ~ 3,000 CFU/100 ml and the city used other methods including but not limited to dye testing, smoke screening, video inspections, ammonia concentrations, and conductivity to confirm that these levels were not sanitary cross connections.

The City of Greeley (mainly the waste water treatment facility) has been collecting E coli monitoring data from the river, going back to 2002, when a monitoring plan for Segment 12of Cache la Poudre River (which also served as the Problem Identification & Source Assessment portion of TMDL development process) was agreed to in conjunction with the Water Quality Control Division. The assessment report was provided to the Division in 2005 with no further response/action having been taken by the division. During this screening process, the City (stormwater) did find and addressed two sanitary sewer cross connection that were found in stormwater outfalls in the priority downtown area. The city has found other contributors to the E coli impairment to be as follows: three irrigation return flow ditches to this segment; ranchers/farmers allowing cattle in the river; and homeless population living under bridges using river as bathroom. From 2002 thru 2004, the city (waste water treatment facility) spent over \$40,000 and the equivalent of 1 FTE for this TMDL monitoring effort.

Since 2005, the City of Greeley (mainly the Waste Water Plant) has continued to monitor segment 12 but at a very reduced effort per the assessment report even though the data supports that the city is not the likely source of E coli contamination.

- 9 What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

Stated in the City's IDDE plan that dry weather screening would occur periodically in the downtown drainage basin, as it was identified as a high potential for illicit discharge based on desktop assessment.

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name): City of Thornton

Permit Certification No: COR – 090034

Questions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

- How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?
 - The outfall locations have been documented on the City's GIS database.
- Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)
 - Yes, the size of the outfalls is also documented on the City's GIS database.
- Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)
 - Yes, the City performs periodic visual dry weather inspections on about 25% of the outfalls in the City.
- 4 If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?

The information gathered is in three categories: <u>General Observations</u>; water flowing or not, standing water or not and evidence of obstructions or erosion. <u>Outfall Structure Conditions</u>; settling, cracking or other problems, instability or increased erosion, vegetation, obstructions and condition for proper operation of structure. <u>Water Quality</u>; trash or debris present, odor, color of water discharged, turbidity, floatable matter, stains or deposits on pipe and unusual algae blooms or any other unusual observations.

- Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.
 - No, this will require additional resources to identify and verify the outfalls that may discharge to impaired waters.
- Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

No, this will require additional resources to identify and verify the outfalls that have dry weather discharges.

Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.

No

- Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
 - To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
 - To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

No

- 9 What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

The information collected by the periodic visual outfall inspections is primarily to comply with Part I.B.3(a)(3). The City has a program to identify, detect and illuminate non-stormwater discharges including locating priority areas and procedures for tracing the source and removing the source of the discharge.

AUG 1 4 2015

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

Water Quality Control

This form is intended to be filled out electronically and then printed or emailed for submittal - emailed submittal is preferred. Please submit the completed MS4 Outfall Survey to the Water Quality Control Division by August 9, 2013. This survey is voluntary.

Please submit to Michelle DeLaria at michelle.delaria@state.co.us, or to:

Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name):

Weld County

Permit Certification No: 090037

COR-

Questions Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.	
1	How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?
	GIS with separate written description
2	Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)
	Varies, written descriptions as required by the permit
3	Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)
	Varies, most have irrigation and/or emergent ground water flows during dry weather.
4	If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?
	Varies, observations of flow conditions. This is not a permit requirement.

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name):

City of Fort Collins

Permit Certification No:

COR - 090050

Questions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?

The City's MS4 outfalls are documented in a database linked to a CAD-based mapping system. Work is in progress to convert data to an ESRI system linked to a computerized maintenance management system.

Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)

Yes. The size of some of the City's MS4 outfalls to classified State waters is documented in the database. Outfall size information is compiled by stormwater maintenance personnel for maintenance purposes, but it is not necessarily stored in the database with the outfall screening information.

Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)

Yes. The City of Fort Collins conducted dry weather screening as a one-time effort during the first permit term to help identify sanitary sewer cross connections to the storm sewer system. At that time, there were 153 outfalls within the MS4 permit coverage area that discharged to Spring Creek, Fossil Creek, Mail Creek and the Cache la Poudre River. New outfalls that have been installed or annexed into the permit coverage area since the one-time effort have been mapped but have not been screened.

The extensive monitoring program identified one contaminated groundwater source and no illicit connections. Based on the screening results and the amount of resources required to continue this program, the City of Fort Collins replaced dry weather screening in its IDDE program with other methods to identify priority areas and illicit connections.

4 If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?

The outfalls were screened for the following: presence of flow, visually estimated flow rate, visual description of water, floatables, damaged or stained pipe, vegetation differences, presence of odor and presence of biomat. A photo was taken of the outfall and if flow was present then a sample was collected and analyzed for Volatile Organic Compounds. Chloroform was chosen as the indicator parameter to distinguish between groundwater and tap water, as it is a byproduct of chlorination that persists in finished water.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

Yes. Based on the one-time screening effort and new outfalls added since it was completed, approximately 190 MS4 outfalls in the permit coverage area discharge to segments listed on the 303(d) list for E. coli and/or Selenium.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

Fifty of the screened outfalls had enough flow to collect samples, but flow rate was not measured. Assuming the flow was greater than 5 gpm, then it can be roughly estimated that at least fifty outfalls have flows greater than 5 gpm. Fort Collins has a high groundwater table; all of the outfall flow sources were determined to be groundwater.

Since the initial screening was performed, approximately 37 outfalls to classified State waters have been added to the database due to new construction and/or annexation and it is unknown at this time how many have dry weather flows of greater than 5 gpm.

Potentially at least 87 outfalls might have dry weather flows greater than 5 gpm, but it cannot be accurately determined unless another survey is conducted.

Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.

Dry weather outfall monitoring data for E. coli was collected for the Udall regional water quality detention facility under a separate project. Its receiving stream segment (COSPCP11) is not listed as impaired for E. coli.

No dry weather outfall monitoring data was collected for Selenium, as it is not a parameter that would indicate an illicit connection or illicit discharge.

- 8 Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
 - To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
 - To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are

substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

In order to screen for current dry weather flows from outfalls to the segments listed on the 303(d) list, the City of Fort Collins would have to survey Spring Creek, Fossil Creek, Mail Creek, Dry Creek, Boxelder Creek and the Cache la Poudre River. The initial dry weather monitoring program was conducted from 2003-2006 with staff working during periods with little to no irrigation contributions. Depending on the timeline of screening for dry weather flows, it is expected that additional resources would be required.

Based on the estimated 87 outfalls with dry weather flows greater than 5 gpm, it is also expected that additional resources would be needed to conduct monitoring for Selenium and E. coli.

High concentrations of selenium are found in local shale deposits, and can be mobilized by infiltration to groundwater. As mentioned previously, the initial screening confirmed that the City of Fort Collins MS4 has a significant base flow of groundwater. It is expected that data collected from monitoring MS4 outfalls for Selenium will support this, but is not expected to be useful in identifying and locating discharges from discrete sources that can be controlled through land use or mitigation techniques.

Sources of E. coli contamination can include human and pet waste, wildlife and re-growth. For this reason, among others, Chloroform was chosen as the indicator parameter to distinguish between groundwater and tap water. Results from the initial dry weather screening did not indicate any sanitary sewer cross connections.

- What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

Dry weather screening was implemented to help assess priority areas and identify sanitary sewer cross connections and illegal dumping activities to the storm sewer system.

Outfall size information is compiled by stormwater maintenance personnel for maintenance purposes.

The City of Fort Collins has collected extensive ambient water quality data on our creeks and the Cache la Poudre River; the program is ongoing to monitor the water quality in the City's watershed. Selenium and E. coli is monitored at two locations each in Boxelder Creek, Spring Creek and Fossil Creek.

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Please submit to Michelle DeLaria at michelle.delaria@state.co.us, or to:

Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name): City of Westminster

Permit Certification No:
COR - 090051

Questions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?

Yes, per GIS

Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)

Newer construction has best information. Some of the older data is just pipe location without size attributes.

Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)

Yes, as part of the Big Dry Creek Watershed Association.

the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?

Observations, photos and some samples.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

Yes, somewhere between 30 and 50.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have **dry weather flows that occur in excess of 5 gallons per minute?** If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

No.

Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.

Yes, Big Dry Creek is on the 303(d) list for e-coli and selenium.

- Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
 - To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
 - To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

No.

Does the Division know what it wants to accomplish with this data?

Selenium is a naturally occurring constituent in groundwater and should not be subject to stormwater regulations. As such, I could be wrong, but I think there is absolutely nothing a stormwater MS4 can do to modify the amount of instream selenium.

From our research, the major contributor of e-coli comes from wildlife in open space areas throughout MS4s. This includes beaver dams, bird nests under bridges, coyotes, prairie dogs, raccoons, geese, ducks etc.

Again, the stormwater MS4 is not the appropriate place to regulate e-coli. Stormwater should only be involved as it relates particularly to the TMDL process.

- What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

The Big Dry Creek Watershed Association collected data to better understand the Creek characteristics in preparation for a future TMDL based on the 303(d) listed impairments.

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Please submit to Michelle DeLaria at michelle.delaria@state.co.us, or to:

Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name): Larimer County

Permit Certification No:

COR - 090052

Ouestions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?

Yes, as part of the MS4 permit requirement, Larimer County has documented outfalls within the permit boundary using a GIS database.

Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)

Approximately 25% of the documented outfalls within the permit boundary have information related to the size of the outfall. We now attempt to capture this information with new outfalls added to the database.

Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)

Yes, in the last 5 years Larimer County has periodically inspected outfalls for the presence of dry weather flow. Each year, between 10%-50% of the outfalls were inspected for flow.

4 If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?

Larimer County typically monitors the presence of flow and collects observations of the flow conditions but we do not have data on the specific flow rates. When flow was present, we have typically performed "in-house" water

quality testing for nitrates and phosphorous. Often we will also test for at least one of the following: copper, iron, sulfate, or manganese. A majority of the test results over the years have shown that the levels were within tolerances, flows were non-problematic, and often from groundwater or irrigation sources.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

A rough estimate using a GIS database query with the shape file provided by CDPHE, Larimer County has about 25% of our outfalls along a segment listed on the 303(d) list for E coli or Selenium.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

No, since we have not collected flow rate data.

Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.

No

- 8 Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
 - To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
 - To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

Based on the observation notes in the database, we can estimate that a small percentage of the outfalls would have flow each year or meet the 5gpm criteria. We have also found that yearly determination of dry weather screening is costly and an ineffective way of identifying illicit discharges.

- 9 What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

Larimer County was trying to proactively understand the characteristics of the outfalls and identify areas of concern. Initially we thought the testing would help identify illicit discharges but dry weather screening has not proven to be effective in this way.

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name): City of Littleton
Permit Certification No:
COR – 090055

One	estions
Plea	ase provide any additional narrative information that you believe may be helpful as the Division evaluates ential permit conditions.
1	How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?
	Yes. All known outfalls have been located on AUTOCAD mapping and documented in an Excel spreadsheet.
2	Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)
	Yes. All known outfalls pipe sizes and materials are documented.
3	Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)
	Yes. A dry weather screening of all known outfalls has been done on an bi-annual basis since 2007. In addition, a dry weather screening of all known outfalls to South Platte River Segment 14 has been conducted monthly since 2007.
4	If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?
	Screenings are for presence of flow, estimated flow rate, temperature, odor, and visuals of color, turbidity and vegetation.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

Littleton has 23 outfalls discharging to South Platte River Segment 14, which is impaired for E. coli. Littleton has 170 additional outfalls discharging to South Platte River and Tributaries Segment 16c. Source of information is biannual screening.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

Littleton has a variable number of 1 to 3 outfalls discharging to Segment 14 with flow rates that may exceed 5 gallons per minute. There are an additional variable number of 9 to 16 outfalls on Segment 16 and Tributaries exceeding 5 gallons per minute. Number of outfalls meeting criteria varies from month to month, season to season, and year to year. Source of information is bi-annual screening since 2009.

Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.

Littleton has E coli lab data for 6 outfalls on Segment 14, which have been found at least one or more times to have a dry weather flow over the past 6 years of screenings.

- 8 Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
 - To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
 - To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

Bi-annual screening has shown number of outfalls with dry weather flow to vary greatly from month to month, season to season, and from year to year. Lab data for E coli # colonies/100 ml has also varied greatly. Bi-annual screening may indicate some flow rates that are substantially elevated relative to outfall size may not be indicative of a cross connection, but may be indicative of hydrologic or groundwater conditions.

- 9 What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

Ease of implementation of the IDDE requirements of the permit.

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

Permittee (Agency name):

Permit Certification No:

Pueblo County

COR - 090060

N/A

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Please submit to Michelle DeLaria at michelle.delaria@state.co.us, or to:

Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Ple	Questions Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.	
1	How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?	
	Outfalls within the permit coverage area are documented by mapping and spreadsheets.	
2	Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)	
	We have information on the size of our outfalls in the permit coverage area.	
3	Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)	
	No	
4	If question 3 was answered "yes," please briefly summarize information that was collected from the screening e.g.	

the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?

5	Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.
	No
6	Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.
	No
7	Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.
	No
8	Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
	• To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
	 To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)
	(Refer to the March 18, 2013 meeting notes for more information.)
	No
9	What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
	ease of implementation of the IDDE requirements of the permit
	 proactively identify pollutant loading from the MS4
	targeted understanding of pollutant loading for impairment parameters to impaired segments
	N/A

MS4 Outfall Survey – Please Reply by August 9, 2013. Municipal Separate Storm Sewer Systems (MS4s) Permits COR090000 and COR080000

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division

WQCD-P-B2

4300 Cherry Creek Drive South
Denver, Colorado 80246-1530



This form is intended to be filled out electronically and then printed or emailed for submittal - emailed submittal is preferred. Please submit the completed MS4 Outfall Survey to the Water Quality Control Division by August 9, 2013. This survey is voluntary.

Please submit to Michelle DeLaria at michelle.delaria@state.co.us, or to:

Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name):	
City Of Montrose	
Permit Certification No:	
COR - 090061	

Questions Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.	
1	How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?
	Yes,GIS
2	Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)
	Yes,GIS
3	Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)
	NO
4	If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?
	N/A

5	Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.		
	0		
6	Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.		
	N/A		
7	Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.		
	N/A		
8	Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically: • To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?		
	• To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)		
	(Refer to the March 18, 2013 meeting notes for more information.)		
	N/A		
9	What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;		
	ease of implementation of the IDDE requirements of the permit		
	 proactively identify pollutant loading from the MS4 		
	 targeted understanding of pollutant loading for impairment parameters to impaired segments 		
	N/A		

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Please submit to Michelle DeLaria at michelle.delaria@state.co.us, or to:

Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name): City of Cherry Hills Village

Permit Certification No: COR - 090066

Questions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?

Cherry Hills Village has mapped the outfalls as outlined in the permit.

Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)

No as it is not required as part of the permit

Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)

Cherry Hills Village does what is required by the permit

4 If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?

NA Since this is not a permit requirement

5 Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge

to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

No. This is not possible since the 303(d) list maps are inaccurate.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

No

Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.

Not required

- Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
 - To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
 - To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

No

- 9 What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

The primary reason no or limited dry weather screening was conducted is due to its ineffectiveness in identifying illicit discharges and its high cost. There have been and continue to be other more cost effective methods of achieving these goals.

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Please submit to Michelle DeLaria at michelle.delaria@state.co.us, or to:

Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name): CITY OF DURANGO

Permit Certification No:

COR - 090088

Ouestions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

- How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?
 - The City of Durango has documented the location of MS4 outfalls within the City limits using a GIS database and maps associated with exports of GIS data.
- Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)

The City has size information on most (if not all) of its outfalls, particularly new outfalls constructed in the last 20 years.

- Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)
 - No no dry weather screening has occurred for City outfalls.
- 4 If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?

N/A

5	Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.
	Within the accuracy of the reports and data provided by the Division, a preliminary estimate can be made.
	Based on the 2012 Regulation #93 Colorado's Section 303(d) List of Impaired Waters and Monitoring and Evaluation List, as well as Division GIS data, there are zero (0) discharges within the City of Durango's coverage area meeting the criteria of this survey.
6	Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.
	Zero discharges, means zero dry weather flows applicable.
7	Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.
	No – no known monitoring data.
8	Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
	• To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
	• To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)
	(Refer to the March 18, 2013 meeting notes for more information.)
	No
9	What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
	 ease of implementation of the IDDE requirements of the permit
	 proactively identify pollutant loading from the MS4
	 targeted understanding of pollutant loading for impairment parameters to impaired segments
	N/A

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Please submit to Michelle DeLaria at michelle.delaria@state.co.us, or to:

Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name): City of Brighton

Permit Certification No:

COR - 090089

Questions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?

The City uses GIS database to document the location of the outfalls. Spreadsheets are utilized for summary and reporting purposes. Additional information related to each outfall is kept on the inspection forms (paper copy).

Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)

Information about pipe size (or cross section of channel) has been collected for existing outfalls, and this information is also being collected every time a new outfall is constructed. The City also documents pipe material and shape of pipe (circular, square culvert, oval shape, etc).

Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)

Since 2008, all known outfalls have been screened annually during dry weather. See table below. The total number of outfalls shown below includes Brighton's WWTP outfall, and other augmentation water outfalls from Gravel pits and Municipal augmentation pipelines (some are augmentation only, but others are augmentation water combined with storm flows).

	Number of	Outfalls with dry
Year	Outfalls	weather flows
2005	23	4
2006	0	0
2007	0	0
2008	40	7
2009	50	10
2010	51	10
2011	56	12
2012	59	8

4 If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?

The type of information that is collected is shown on the 2012 Outfall Inspection Form attached. The form has been revised annually and additional information has been added to the 2012 form (compared to previous years).

Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

No. Accurate 303(d) list maps are needed. Besides mapping, additional assistance and discussions will be needed to determine the number of outfalls discharging into segments listed on the 303(d) list as impaired for E coli and or Selenium considering that:

- 1) There are currently 15 outfalls discharging into the South Platte. A few more outfalls will be added with the construction of Metro's Northern WWTP. Not all 15 outfalls are storm sewer outfalls. This number includes temporary and permanent augmentation structures, some are combined with storm flows, some belong to the City and others are privately owned and operated by gravel pits.
- 2) McCanne ditch also discharges into the South Platte. A portion of the McCanne ditch has been recently dedicated to the City of Brighton. It is unclear if Third Creek is currently connected to McCanne ditch, since at that location there are still active gravel operations.
- 3) The east side of Brighton discharges into Beebe Draw Metro District, additional assistance and discussions will be needed to assess outfall and potential impact to Bar-Milton Watershed. This is a separate, independent district that is not being regulated as a Non-standard MS4 at this time. The City has limited information about their master drainage plan and/or the status of the construction of their main outfall under the RR adjacent to I-76 & WRC2.
- 4) Brighton is every year annexing more parcels to the City and the number of outfalls will vary in the future. Brighton may start discharging into other segments and/or creeks, such as Third, Second or even First Creek
- 5) The City of Brighton discharges to the following waters of the state or irrigation ditches:

	South Platte	
	Third Creek	
	McCanne Ditch	
	Second Creek	
	Fulton Ditch	
	Fulton Lateral	
	Brighton Lateral	
	Speer Canal	
	W Burlington Ext	
	Denver Hudson Canal	
	Beebe Draw Metro District	
6	Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have	
	dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.	
	No. It is difficult to estimate flows since many outfalls discharge:	
	1) Brine from Reverse Osmosis Water Plant.	
	2) Augmentation water, combined with stormwater flows.	
	3) Natural springs/Groundwater	
	4) Residential/Commercial sump pumps	
	5) Under drain systems for subdivisions	
	6) Farming irrigation return flows (although absent between October to April)	
	7) Irrigation sprinkler systems (although absent between October to April)	
	8) I'm assuming that Brighton's WWTP outfall and the "augmentation-only" outfalls would not be required to be monitored.	
	9) The new Northern WWTP will be collecting on-site run-off water. These flows will be mixed with sanitary wastewater and it will be treated at the WWTP. Storm flows will be discharged combined with treated	
	wastewater flows.	
7	Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe,	
	and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.	
	Scientini.	
	No. It was not required by the permit, and (for sewage) it was also not found necessary during the field screenings.	
8	Does the Permittee have any other information that could excite the Division in better understanding the number of	
ð	Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division?	
	Specifically:	
	• To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the	

303(d) list as impaired for E coli and or Selenium?

• To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

No, all the concerns and available information is being provided in this survey.

What would be the equivalent of a 36" diameter pipe for a channel?

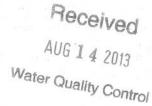
- 9 What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

The primary reason for limited dry weather screening was conducted is due to its ineffectiveness in identifying illicit discharges and its high cost. There have been and continue to be other more cost effective methods of achieving these goals.

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

Permittee (Agency name):



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Please submit to Michelle DeLaria at michelle.delaria@state.co.us, or to:

Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Pueblo Wast Metropolitan District

Permit Certification No: COR - 090090	
Questions Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.	
1	How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?
2	Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)
3	Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)
4	If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc? N/A

5	Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.
	No
6	Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have dry weather flows that occur in excess of 5 gallons per minute? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.
	No
7	Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.
	No
8	Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically: • To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
	 To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)
	(Refer to the March 18, 2013 meeting notes for more information.)
	No
9	What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
	 ease of implementation of the IDDE requirements of the permit proactively identify pollutant loading from the MS4
	targeted understanding of pollutant loading for impairment parameters to impaired segments
	NA

COLORADO DEPT. OF PUBLIC HEALTH & ENVIRONMENT

Water Quality Control Division WQCD-P-B2 4300 Cherry Creek Drive South Denver, Colorado 80246-1530

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Attn: Michelle DeLaria Colorado Department of Public Health and Environment WQCD-P-B2 4300 Cherry Creek Drive South Denver, CO 80246-1530

Permittee (Agency name): 521 Drainage Authority

Permit Certification No:

COR - 090100

Ouestions

Please provide any additional narrative information that you believe may be helpful as the Division evaluates potential permit conditions.

- How has the Permittee documented the location of its MS4 outfalls in the permit coverage area, as required by Part I.B.3(a)(1) of the permit (E.g., in a GIS database, maps, spreadsheets, etc)?
 - 95%+ have been located via GIS and field observations. All major outfalls into the Colorado River have been identified.
- Does the permittee have information on the size of its MS4 outfalls in the permit coverage area (e.g., 12", 24", 36")? Please provide any additional comments about how extensive this information is (e.g., only for new outfalls, for most outfalls, etc.)

Size of outfall is known on some of the outfalls. Many are open ditches of various of capacities.

- Has the Permittee conducted dry weather screening of its MS4 outfalls in the permit coverage area? If "yes," please explain if the screening was a one-time effort or is part of an ongoing/routine evaluation and provide the approximate number or percentage of outfalls screened. (Note: do not include field work solely for mapping purposes that did not assess the presence of flow.)
 - 5-2-1 Drainage Authority represents City of Grand Junction, City of Fruita, Town of Palisade and Mesa County. The City of Grand Junction biannually visually inspects outfalls for flood control operations. All City owned BMPs are inspected more frequently on a schedule set by maintenance history. Mesa County has not conducted dry weather screening. Town of Palisade has 8 entrances into Colorado River. These facilities are visually inspected.

Grand Valley Drainage District 35 comingled drains within the urbanized (42 total) into the Colorado River. 23 GVDD outfalls into natural washes within the urbanized area. All of these facilities run seep water comingled with irrigation return and urban stormwater. These facilities are maintained but are not screened as they flow year round.

4 If question 3 was answered "yes," please briefly summarize information that was collected from the screening, e.g., the presence of flow, flow rate, observations of flow conditions, pollutants monitoring, etc?

The City of Grand Junction, GVDD, Mesa County, and Palisade visual inspections are incidental to maintenance activities.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls in the permit coverage area discharge to segments that are listed on the 303(d) list as impaired for E coli and or Selenium? If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

21 outfalls discharge into 303(d) listed tributaries for E coli. These 303(d) listed waters include Leach Creek and Adobe Creek.

All tributaries to the Colorado River within the urbanized area are listed for Selenium. There are 134 outfalls that have been identified as discharging to these tributaries.

The Colorado River through the urbanized area is NOT currently on the 303(d) list as of March 30, 2012.

Does the Permittee know how many (or have an estimate) of its MS4 outfalls meeting the criteria in question 5 have **dry weather flows that occur in excess of 5 gallons per minute?** If "yes," please provide number (or approximation) and briefly discuss the source of this information or method of approximation.

This has not yet been determined.

Does the Permittee have any dry weather outfall monitoring data for selenium or E coli? If "yes,", please describe, and address if any of the data is for stream segments that are on the 303(d) list as impaired for E coli and or Selenium.

E.Coli and Selenium has not been sampled on these outfalls

- Does the Permittee have any other information that could assist the Division in better understanding the number of outfalls that may require screening and/or monitoring in accordance with the concepts discussed by the Division? Specifically:
 - To require screening for dry weather flows of the Permittee's outfalls to segments that are listed on the 303(d) list as impaired for E coli and or Selenium?
 - To require monitoring of those outfalls identified by this screening as having dry weather discharges that persist during periods with little to no irrigation contributions that exceed 5gpm. (Note: an exception was discussed for outfalls with smaller than a 36" diameter or equivalent without having significant dry weather discharge conditions. Significant dry weather discharge conditions may include flow rates that are substantially elevated relative to the outfall size and the flow rate of any nearby outfalls, and discharges likely to be resulting from a cross connection based on qualitative observations.)

(Refer to the March 18, 2013 meeting notes for more information.)

There is no additional information available to the best of the Permittee's knowledge.

- 9 What was the primary reason information was collected/compiled beyond that specifically required by Part I.B.3(a)(1) of the permit? E.g.;
 - ease of implementation of the IDDE requirements of the permit
 - proactively identify pollutant loading from the MS4
 - targeted understanding of pollutant loading for impairment parameters to impaired segments

Information was only collected for maintenance activities.